

## **REMARKS**

Claims 1-30 are pending. There are no amendments presented with this Response. Claims 1-30 remain pending for consideration.

Applicants respectfully request reconsideration and allowance of the application in view of the following remarks.

### **Rejection Under 35 U.S.C. § 102(b)**

Claims 1-30 stand rejected under 35 U.S.C. 102(b) based upon, according to the Office action, “a public use or sale of the invention.”

The rejection is traversed because the sale of an FSI POLARIS® 2500 microlithography cluster semiconductor processing system, as described in Applicants’ July 19, 2002, Information Disclosure Statement, did not place Applicants’ presently claimed invention, including Synchronization control of a developer solution, “on sale.”

### **Applicants’ pending claims**

Applicants’ pending claims 1-30 recite specific “Synchronization” control features in connection with controlling the spin-coat application of a developer solution. By “Synchronization” control, it is meant that process control uses an interrupt signal to interrupt sequential process control to execute a process command, e.g., as described in claim 1 of the above-identified patent application.

In using photolithography in the microelectronic industry, a developer solution is used in conjunction with an earlier-applied photoresist composition and a semiconductor substrate. (See, the specification, e.g., from page 1, line 28 to page 2, line 7). The developer solution is different from a photoresist material and is applied using one or more process steps separate from, and after, the application of a photoresist material. (See, the specification, e.g., from page 1, line 28 to page 2, line 7).

*The FSI POLARIS® 2500 microlithography cluster semiconductor processing system ("The System") described in Applicants' July 19, 2002, Information Disclosure Statement*

Applicants submitted an Information Disclosure Statement (IDS) on July 19, 2002, regarding potential disclosure or sales activity of a particular FSI POLARIS® 2500 microlithography cluster semiconductor processing system ("The System"). "The System" included a photoresist coat station and a developer coat station.

*The System included Synchronization control of the photoresist coat station*

As noted in numbered paragraphs (1) and (2) of the IDS, The System included hardware and software that were connected and programmed in a way so that The System used Synchronization control of the photoresist coat station.

*The System did not include Synchronization control of the DEVELOPER coat station*

As noted in numbered paragraph (3) of the IDS:

The System included hardware that allowed for Synchronization control of the develop station during processing. The System also included software that included available commands that could have been used to operate The System using Synchronization control of the develop station. (Emphasis added).

Numbered paragraph (6) goes on to note that:

Prior to May 31, 1999, The System's software was not programmed to operate using Synchronization control at the develop station and was not used to perform methods of coating developer solution with synchronization control.

Thus, although The System included hardware and software tools that could have been used to operate the develop station under Synchronization control, if those hardware and software tools had been implemented to do so, The System was not set-up (e.g., programmed) to use Synchronization control and did not use Synchronization as a method to control the developer station.

*Applicants' claims 1-30 are not anticipated under § 102 (b) as having been on-sale prior to the critical date*

The on-sale bar is designed to prevent individuals from applying for a patent more than one year after a commercial sale or offer for sale of the invention, e.g., more generally, to prevent individuals from applying for a patent more than one year after exploiting the invention commercially.

The Office action cites the two-prong *Pfaff* test as relevant precedent:

[T]he on-sale bar applies when two conditions are satisfied before the critical date. First, the product must be the subject of a commercial offer for sale... Second, the invention must be ready for patenting. (See, *Pfaff v. Wells Electronics, Inc.*, 48 USPQ2d 1641, 1646, 1647 (1998)).

With respect to the first prong of this test -- identification of a commercial offer for sale -- the recent case of *Scaltech, Inc. v. Retec/Tetra, LLC* (citing *Pfaff*), states:

[T]he invention that is the subject matter of the offer for sale must satisfy each claim limitation of the patent, though it may do so inherently ... Inherency is established if 'the natural result flowing from the operation as taught would result in the performance of the questioned function' ... However, as we noted in *Scaltech II*, '[I]nherency may not be established by probabilities or possibilities.' (See, *Scaltech, Inc. v. Retec/Tetra, LLC*, 60 USPQ2d 1687, 1692 (Fed. Cir. 2001)). (Emphasis added).

The rejection is traversed, e.g., because the sale described in the IDS did not meet the first prong of the *Pfaff* test, which requires that the invention, including all of its claim limitations, be the subject of a commercial sale.

All of Applicants' pending claims 1-30 recite specific Synchronization control features in connection with controlling the spin-coat application of a developer solution. The System described in Applicants' Information Disclosure Statement did not use and was not programmed to use Synchronization control of a developer coat station. Even though The System included hardware and software that could have possibly been used, if properly implemented and programmed, to control the developer station using Synchronization control, The System was not programmed to use Synchronization process control, and did not use Synchronization, at the develop station. Thus, all features recited in the pending claims were not embodied in The System.

Regarding the possibility of inherency of the claimed invention within The System, Synchronization control of the develop station was not a necessary or natural result flowing from the operation of The System. The System as sold and operated did not use and was not programmed to use Synchronization control of the developer station, and functioned without using Synchronization control at the developer station. Logically, there is no support for the idea that Synchronization control of the developer station was a “natural” result inherent within The System.

Because the first prong of the *Pfaff* test has not been satisfied, the rejection as presented in the Office action is not legally tenable. The second prong of the *Pfaff* test (ready for patenting) is not necessary to consider.

The Office action asserts that the first prong of *Pfaff*, is met -- i.e., “the current invention was the subject of the sale” -- for the following reasons:

*It is well established in the semiconductor manufacturing art that hardware and a method used in coating one type of processing solution may be used in coating another type of processing solution.*

This passage of the Office action is entirely unsupported, and moreover, is of no legal consequence with respect to the assertion that the “current invention was the subject of the sale.” Firstly, the Office action does not indicate how any prior art or other authority supports the conclusion that “hardware and a method used in coating one type of processing solution [e.g., a photoresist] may be used in coating another type of processing solution [e.g., developer].”

Regardless, the asserted conclusion, even if accepted, is of no legal effect under the first prong of the *Pfaff* test. That is, even if it were established (which it is not, by the Office action) that hardware and methods used in coating a photoresist processing solution “may be used” to coat a developer solution, such a showing would not be relevant under *Pfaff* and *Scaltech*. These cases require that subject matter of a commercial sale satisfy all features of a claimed invention, not that a device “might,” “could,” or “may be” used according to claimed subject matter. The potential that a device may be used as claimed is not enough under the law. As a result, contrary to the

Office action, the invention has not been shown to have been the subject of a sale according to *Pfaff* and *Scaltech*.

The Office action then states:

*The software program that was used to program the Synchronization control of the spin coating of photoresist solution onto the substrate at the 'coat station' must inherently use steps that would also be used in spin coating a developing solution onto the substrate at the 'develop station'.*

From this statement, it appears the Office action may ignore specific language of Applicants' claims, may misunderstand the relevant technology or the claimed invention, or is simply off-base. Applicants' claims all relate to the use of Synchronization control in application of a developer solution. Developer solution is a different material than photoresist solution, and is applied at a different time to a substrate, at a separate coating station, having a separate process control system, from the photoresist station and process control system. Again, in the sale discussed in the IDS, the photoresist station used Synchronization control; the developer station did not use Synchronization control. Factually, the two control systems did not use the same series of steps, inherently or otherwise. Synchronization control was simply not used at the developer station, and the first prong of the *Pfaff* test has not been met, because the System did not embody all features of Applicants' claims.

Later, the Office action apparently attempts to establish that the second prong of the *Pfaff* test (that an invention was "ready for patenting" at the time of a commercial sale or offer for sale) is met, in a discussion of the possibility that Synchronization control of a develop station had been conceived of at the time of Applicants' described sale:

*[The] same basic steps would be used in using the Synchronization control to spin coat the developing solution at the 'develop station'. [T]he conception of using the Synchronization control software with the already installed 'develop station' hardware was already known because the conception or invention of using Synchronization control with a spin coating process was already known and used with the 'coat station' by the sale of The System. . . .*

This statement is insufficient to support a rejection under the two-pronged *Pfaff* test. Again, the claimed subject matter, including all features, has not been shown to have been

the subject of a commercial offer for sale under the first prong of the *Pfaff* test. The issue of a conception of the invention may relate to the second prong of *Pfaff*, whether an invention was “ready for patenting,” but that issue is moot at present based on the failure of the present facts to meet the first prong.

Specifically, in the words of the Office action, whether a “conception” of Applicants’ claimed invention, e.g., relating to Synchronization control of a developer process, was “already known,” e.g., at the time of a commercial sale or offer for sale, does not trigger an on-sale bar, e.g., under the present facts. An issue that is initially germane to an on-sale bar (see the first prong of *Pfaff*) is whether an invention -- including all of its features -- was sold or offered for sale, e.g., whether the invention was commercially exploited. A necessary element under *Pfaff* is not simply whether an invention was “already known,” e.g., had been conceived of prior to a critical date, but whether the invention (e.g., as conceived) was the subject of a sale or offer for sale. Under *Pfaff*, a conception, in combination with a sale of product that does not embody the invention, would not trigger the on-sale bar; e.g., sale of a device that did not embody all features of an invention would not amount to a commercial exploitation of the invention and does not trigger the on-sale bar. This is true even if the inventors could be shown to have conceived of the invention at the time of the sale or offer for sale, because the invention that was conceived of at that time still was not sold or offered for sale and there was no commercial exploitation of the invention and no on-sale bar.

The facts at hand do not show that Applicants commercially exploited (e.g., sold or offered to sell) a device that embodied all features of the pending claims, before the critical date. Whether Applicants had conceived of the invention at that time is not germane, because the first element of *Pfaff*, a showing of a sale of a device that embodies all features of the invention, is not met. As such, the rejection is not legally sustainable and should be withdrawn.

Finally, Applicants note that in the Office action’s rejection of claims 1-30 under the “on-sale” bar, the Office action includes the phrase “public use.” However, the Office action only provided an “on-sale” bar analysis as outlined in the *Pfaff v. Wells Electronics, Inc.* case.

Applicants respectfully request that the rejection of claims 1-30 under 35 U.S.C. 102(b) based upon a public use or sale of the claimed invention be withdrawn.

**Conclusion**

In view of the above remarks, it is respectfully submitted that the claims and the present application are now in condition for allowance. Approval of the application and allowance of the claims is earnestly solicited. In the event that a phone conference between the Examiner and the Applicant's undersigned attorney would help resolve any remaining issues in the application, the Examiner is invited to contact said attorney at (651) 275-9831.

Respectfully Submitted,

By: *D.C. Schulte*  
Daniel C. Schulte, Reg. No. 40,160



33072

PATENT TRADEMARK OFFICE

Phone: 651-275-9806

Facsimile: 651-351-2954

Dated: August 26, 2004

DCS#12605